IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A transmitting unit within a communications system where at least some part of the transmission is executed by means of radio waves and in cells, and where symbols are transmitted by means of Orthogonal Frequency Divisional Multiplexing, [[so]] called OFDM-technology, between a transmitting unit and a receiving unit, at which the symbol transmission is executed over a transmission channel in blocks of binary digits and with a guard interval [[GI]] (GI) between [[said]] the blocks, comprising:

~~characterized in that said transmitting unit is equipped with means~~ a device configured to control the length of the guard interval (GI) with regard to the size of the cell in which the transmitting unit is located.

Claim 2 (Currently Amended): The transmitting unit as claimed in ~~patent~~ claim 1, wherein ~~characterized in that~~

the ~~said means~~ device configured to control the length of the guard interval (GI) includes a guard interval adjustment unit ~~(310)~~ including an adjustable guard interval parameter.

Claim 3 (Currently Amended): The transmitting unit as claimed in ~~patent~~ claim 2, wherein ~~characterized in that~~

the [[said]] guard interval parameter can be changed via handling/managing system SNMP.

Claim 4 (Currently Amended): The transmitting unit as claimed in ~~patent~~ claim 2, wherein ~~characterized in that~~

the [[said]] guard interval adjustment unit ~~(310)~~ calculates a guard interval with regard to the size of the current cell.

Claim 5 (Currently Amended): The transmitting unit as claimed in ~~patent~~ claim 2, wherein ~~where~~ the guard interval has been adjusted to the size of the cell in such a way that the length of the guard interval in nanoseconds is set to, in the main, six times the cell radius in meters, that is, for a cell with the radius 100 meters, the length of the guard interval is set to/at 600 nanoseconds.

Claim 6 (Currently Amended): The transmitting unit as claimed in ~~patent~~ claim 3, wherein ~~characterized in that~~

the [[said]] guard interval adjustment unit ~~(310)~~ also takes into consideration the impulse response of the transmission channel.

Claim 7 (Currently Amended): A receiving unit within a communications system as claimed in ~~patent~~ claim 1, wherein ~~characterized in that~~

the receiving unit is equipped with an adjustment module which adjusts the receiving unit according to the current guard interval in the cell.

Claim 8 (Currently Amended): The receiving unit as claimed in ~~patent~~ claim 7, wherein ~~characterized in that said~~ the adjustment is made through/by an operator.

Claim 9 (Currently Amended): The receiving unit as claimed in ~~patent~~ claim 7, wherein ~~characterized in that,~~

at the [[said]] adjustment, an algorithm ~~which includes the following step~~ is used including:

[[-]]estimation of received guard interval.

Claim 10 (Currently Amended): The receiving unit as claimed in ~~patent~~ claim 9, wherein ~~characterized in that~~

the [[said]] estimation is made by calculating an estimate of the difference between received and expected block start point of time, ~~the so~~ called "coarse framing offset" δ_{int} according to the formula:

$$\hat{\delta}_{\text{int}} = \arg\min_{n} \left\{ \frac{1}{G} \sum_{l=0}^{G-1} \left| |y_{i,l+n}|^2 - |y_{i,l+n+N}|^2 \right| \right\}$$

where n=0, 1, 2,.., 2G + 2N -1 and G indicates the sample length at the guard interval[[.]] and y_l indicates the received signal of the i:th OFDM-symbol in the time domain.

Claim 11 (Currently Amended): A method within a communications system where at least some part of the transmission is executed by means of radio waves and in cells, and where symbols are transmitted by means of Orthogonal Frequency Divisional Multiplexing, [[so]] called OFDM-technology, between a transmitting unit and a receiving unit, at which the transmission of symbols is executed over a transmission channel in blocks of binary digits with a guard interval [[GI]] (GI) between [[said]] the blocks, where said method comprises ~~includes the following steps~~:

~~estimation (510)of~~ estimating channel characteristics, also including ~~production of/~~ producing/finding the size of the cell;

~~estimation (520) of~~ estimating least possible guard interval length which gives rise to an intersymbol interference within acceptable limits;

~~production (530) of~~/ producing/finding guard interval parameter based on [[said]] the guard interval length; and

~~incorporation (540)~~ incorporating and ~~use of said~~ using the guard interval parameter at transmission of symbols from [[said]] the transmitter.

Claim 12 (Currently Amended): The method ~~Method~~ as claimed in ~~patent~~ claim 11, ~~where~~ wherein the ~~said estimation~~ estimating of channel characteristics also includes ~~production of~~ producing/finding impulse response of the channel.

Claim 13 (Currently Amended): The [[A]] method ~~at a communications system~~ as claimed in ~~patent~~ claim 11, ~~including~~ further comprising:

~~estimation of~~ estimating received guard interval.

Claim 14 (Currently Amended): The [[A]] method as claimed in ~~patent~~ claim 13, wherein ~~where said estimation~~ the estimating is constituted ~~by one~~ by operator decided guard interval.

Claim 15 (Currently Amended): The [[A]] method as claimed in ~~patent~~ claim 13, wherein ~~where said estimation~~ the estimating is executed by calculating an estimate of the difference between received and expected block start point of time, ~~the so~~ called "coarse framing offset" δ_{int} according to the formula:

$$\hat{\delta}_{\text{int}} = \arg\min_{n} \left\{ \frac{1}{G} \sum_{l=0}^{G-1} \left| |y_{i,l+n}|^2 - |y_{i,l+n+N}|^2 \right| \right\}$$

where n=0, 1, 2,.., 2G + 2N -1 and G indicates the length of sample at the guard interval[[.]] and y_l indicates the received signal of the i:th OFDM-symbol in the time domain.

Claim 16 (Currently Amended): A method within a communications system where at least some part of the transmission is executed by means of radio waves and in cells, and where symbols are transmitted by means of Orthogonal Frequency Divisional Multiplexing, [[so]] called OFDM-technology, between a transmitting unit and a receiving unit, at which the symbol transmission is executed over a transmission channel in blocks of binary digits with a guard interval [[GI]] (GI) between [[said]] the blocks, ~~where said~~ the method ~~includes that~~ comprising:

controlling the length of the guard interval [[GI]] (GI) ~~is controlled~~ with regard to the size of the cell in which the transmitting unit is located.

Claim 17 (Currently Amended): The [[A]] method as claimed in patent claim 16,wherein ~~where~~ the length of the guard interval [[GI]] (GI) in nanoseconds is set to/at, in the main, six times the cell radius in meters, that is, for a cell with the radius 100 meters, the length of the guard interval GI is set to/at 600 nanoseconds.

Claim 18 (Currently Amended): A communications system where at least some part of the transmission is executed by means of radio waves and in cells, and where symbols are transmitted by means of Orthogonal Frequency Divisional Multiplexing, [[so]] called OFDM-technology, between a transmitting unit and a receiving unit, at which the symbol transmission is executed over a transmission channel in blocks of binary digits with a guard

interval [[GI]] (GI) between [[said]] the blocks, ~~characterized in that said system is equipped with means~~ comprising:

a device configured to control the length of the guard interval (GI) with regard to the size of the cell in which the transmitting unit is located.